

We claim:

1. A thermoplastic label comprising:

a. a first skin layer comprising a thermoplastic and a first cavitating agent wherein the first skin layer has a first side and a second side and the first skin layer is cavitated wherein the first side of the first skin layer is adapted to be used in contact with a cold glue adhesive.

2. The thermoplastic label of claim 1 wherein the thermoplastic is polypropylene and wherein the first skin layer has a thickness of at least about 0.3 mil.

3. The thermoplastic label of claim 1 wherein the thermoplastic is polyethylene.

4. The thermoplastic label of claim 2 further comprising:

a core layer comprising polypropylene and a second cavitating agent wherein the core layer has a first side and a second side and the first side of the core layer is adjacent to the second side of the first skin layer.

5. The thermoplastic label of claim 2 further comprising:

a tie layer comprising polypropylene wherein the tie layer has a first side and a second side and the first side of the tie layer is adjacent to the second side of the first skin layer; and a core layer comprising polypropylene and a second cavitating agent wherein the core layer has a first side and a second side and the first side of the core layer is adjacent to the second side of the tie layer.

6. The thermoplastic label of claim 5 wherein the tie layer has a thickness of at least about 0.3 mil.

7. The thermoplastic label of claim 4 further comprising:

a second skin layer comprising polypropylene having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the core layer.

8. The thermoplastic label of claim 5 further comprising:

a second skin layer comprising polypropylene having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the core layer.

9. The thermoplastic label of claim 8 further comprising:

a metal layer on the second side of the second skin layer.

10. The thermoplastic label of claim 4 wherein the core layer is cavitated.

11. The thermoplastic label of claim 1 wherein the first skin layer comprises at least about 15% by weight of the thermoplastic label.
12. The thermoplastic label of claim 1 wherein the first cavitating agent is selected from the group consisting of polyamides, polybutylene terephthalate, polyesters, acetals, acrylic resins, nylons, solid preformed glass spheres, hollow preformed glass spheres, metal beads, metal spheres, ceramic spheres, calcium carbonate, COC's, and mixtures thereof.
13. The thermoplastic label of claim 1 wherein the first cavitating agent comprises calcium carbonate.
14. The thermoplastic label of claim 1 wherein the label has a thickness from about 3 mils. to about 5 mils.
15. The thermoplastic label of claim 1 wherein the label has a thickness from about 1 mil to about 10 mils.
16. The thermoplastic label of claim 1 wherein the label is biaxially oriented.
17. The thermoplastic label of claim 1 wherein the first cavitating agent comprises at least about 25% by weight of the first skin layer.
18. The thermoplastic label of claim 1 wherein the first cavitating agent comprises at least about 35% by weight of the first skin layer.
19. The thermoplastic label of claim 1 wherein the first cavitating agent comprises at least about 50% by weight of the first skin layer.
20. The thermoplastic label of claim 1 wherein the polypropylene comprises homopolymer polypropylene.
21. The thermoplastic label of claim 1 wherein the polypropylene comprises homopolymer polypropylene and wherein the cavitating agent comprises at least about 25% by weight of the first skin layer.
22. The thermoplastic label of claim 4 wherein the second cavitating agent is selected from the group consisting of polyamides, polybutylene terephthalate, polyesters, acetals, acrylic resins, solid preformed glass spheres, hollow preformed glass spheres, metal beads, metal spheres, ceramic spheres, calcium carbonate, COC's, and mixtures thereof.

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23. The thermoplastic label of claim 4 wherein the second cavitating agent is selected from the group consisting of polybutylene terephthalate, calcium carbonate, and COC's.

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24. A thermoplastic label adapted to be applied to a container comprising:

- a. a first skin layer comprising polypropylene and a first cavitating agent wherein the first skin layer has a first side and a second side and the first skin layer is cavitated;
- b. A cold glue applied to the first side of the first skin layer wherein the label is adapted to be applied to the container.

10 25. A container having a thermoplastic label comprising:

- a. a surface of the container;
- b. a cold glue adjacent to the surface;
- c. A label comprising a first skin layer comprising polypropylene and a first cavitating agent wherein the first skin layer has a first side and a second side and the first skin layer is cavitated and the first side is adjacent to the cold glue.

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26. The container of claim 25 wherein the label further comprises a core layer comprising polypropylene and a second cavitating agent having a first side and a second side wherein the first side of the core layer is adjacent to the second side of the first skin layer.

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